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To: [Burt Shephard/R10/USEPA/US@EPA](#); [Joe Goulet/R10/USEPA/US@EPA](#); [Elizabeth Allen/R10/USEPA/US@EPA](#); [Chip Humphrey/R10/USEPA/US@EPA](#)
Subject: Portland Harbor Round 3 Fish Analysis and Compositing
Date: 01/03/2011 09:19 AM

Hi EPA Portland Harbor – I have a question I am hoping you can help me with.

No Round 3 fish were analyzed as true whole body samples. Instead, they were analyzed as fillet and body without fillet, and then mathematically re-combined to a “whole body concentration”. I am reviewing this method for a site here in Oregon, and while they are constantly citing Portland Harbor as reasoning to go forward with this sampling at our site, I couldn’t find a good record of methodologies used in Portland Harbor outlining how this was done. I did find an e-mail (below) from Dana asking if anyone had reviewed their calculations and methodologies, but could find no response. The questions I have are:

1. Is the equation for re-combining sound? It sounds like they did an organic carbon weighted basis, but I thought you had to also consider mass. Where is this equation and methodology presented? I could find no document describing the equation or methodologies used by the LWG – if this exists could you point me to the right place?
2. What are the data rules for combining two different analytical results (fillet and body without fillet) to obtain the recombined whole body estimate? What data rules were used in PH?
3. What were the laboratory techniques used to minimize loss during the filleting and handling of the different parts to ensure an accurate whole body estimate?
4. Is this methodology something you are recommending on other sites? I have to admit that I am not a fan, and would rather get true whole body samples, and collect additional fish to get the fillets. While I think it can be done under certain circumstances where fish availability is low, I think does not have its own uncertainties. The fact that there is no protocol anywhere for this methodology (homogenization, analytical, data rules, and recombining equation), and is not being used nationally as far as I can tell with the exception of Region 10 (Windward projects) does not increase the comfort level. If Region 10 is recommending the methodology, is there someone in particular I can discuss the issues above with?

Thank you, and I hope you all had a great holiday break!

Jennifer

From: Davoli.Dana@epamail.epa.gov [mailto:Davoli.Dana@epamail.epa.gov]
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To: Shephard.Burt@epamail.epa.gov; Goulet.Joe@epamail.epa.gov; PETERSON Jenn L
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Subject: Round 3 Fish Data

Did any of you check the calculation that the LWG did on the Round 3 data to calculate whole body data? A part of the HHRA states, *“Fillets with skin and the remainder of body were analyzed separately in Round 3B for smallmouth bass and common carp. Whole body concentrations were calculated from these results on an organic carbon- weighted basis, which provided the opportunity to compare concentrations of chemicals in the fillet tissue with concentrations in the whole body tissue for the same fish tissue sample.”* I am not sure if I clearly understand how the calculation was done.